ATTACHMENT 4 – PROJECT DESCRIPTION (with City's Background)

The City of Upland (the City) is approximately 35 miles east of Los Angeles in San Bernardino County, at the base of the San Gabriel Mountains. The City's population is about 74,000 and projected to reach over 82,000 by 2035. Current water demands are approximately 22,600 acre-feet per year (AFY) with a projected demand of over 24,000 AFY by 2030.

The City's main supply is comprised of groundwater (70%) and local surface supply (10%). A portion of the City's groundwater is from the Chino Groundwater Basin (Chino Basin), managed by the Chino Basin Watermaster (CBWM). The remaining supply is imported water (20%), from the State Water Project, conveyed by the Metropolitan Water District of Southern California (MWD) and provided by the City's regional water and wastewater service agency, the Inland Empire Utilities Agency (IEUA).

The City has been continuously improving its water infrastructure and supply sources. To be specific, in order to capture high quality storm water available in the upper Chino Basin for recharge, the City constructed the Upland Basin and implemented Phase 1 of its Storm Drainage System Improvement Project (for a total of approximately $20 million). It is situated in the southwest corner of town (Map A), designed for a 100-year storm, and capable of more recharge than it is currently being utilized for.

Since the completion of these projects in 2007, approximately 4,200 acre-feet of storm water have been captured and recharged at the Upland Basin, increasing the Chino Basin supply by the same volume. In addition, over 16,000 acre-feet of imported water were also recharged in the same period. Without these projects constructed by the City, high quality storm water, a valuable local drinking water source, would be lost and imported water from northern California could not have been stored for future use in the region. The City's recharge at Upland Basin improves both the water quality and quantity of Chino Basin.

In addition to capturing high quality storm water for recharge, the City has implemented its Recycled Water Master Plan (the Plan) to augment the City's supply with recycled water, for both direct irrigation use and groundwater recharge. In accordance with the Plan, the City recently built approximately 10,000 linear feet of local recycled laterals (total of $2.4 million), which were constructed concurrently with the IEUA construction of its regional recycled water line. To maximize recycled water conveyance to the City, the majority of local laterals were constructed with the same size as the regional line's of 24-inch. The City's local recycled water laterals extend the IEUA regional recycled water line toward the west (from the eastside of the City as shown in Map B).

The City is now at a strategic juncture where a feasibility study is needed to identify opportunities and challenges pertaining to recharge of recycled water at the Upland Basin, to analyze the extension of the recycled water system and to study potential impacts to down gradient groundwater purveyors in the Chino Groundwater Basin. Specifically, the study objectives are listed below.

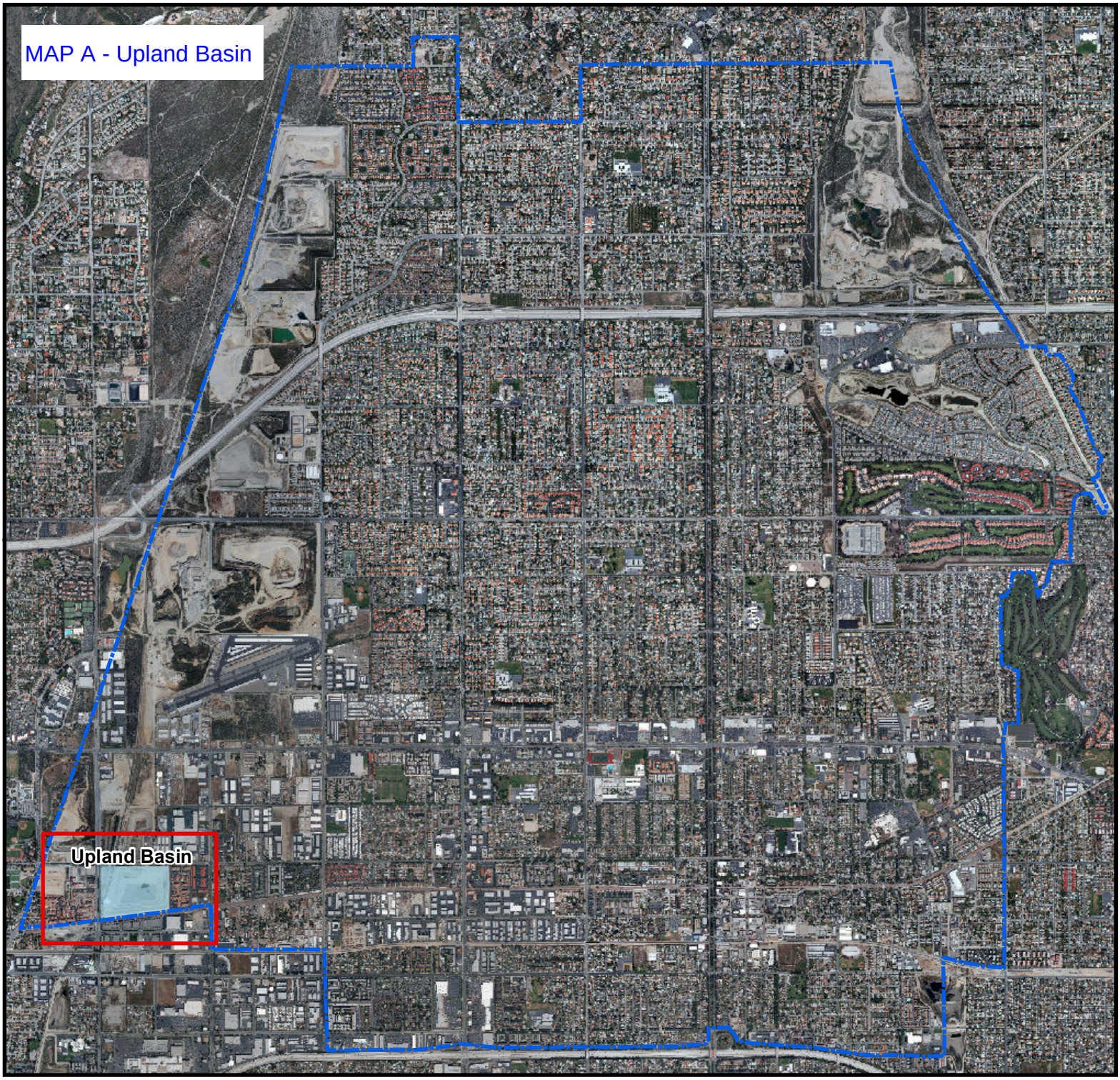
Feasibility Study Scope and Objectives	
1	Identify regulatory requirements and steps to recharge recycled water at Upland Basin
2	Evaluate facilities required to deliver recycled water to the Upland Basin
3	Evaluate potential or future recycled water uses, either within or outside Upland, which may be served as outcomes of facilities expansion

Feasibility Study Scope and Objectives (Continued)	
4	Evaluate/review qualities of storm water, recycled water, untreated imported water, and hydro-geological data of the Upland Basin
5	Identify the operating plan to meet regulatory requirements that provide the most recharge benefit in groundwater quality and quantity, given the sources of water available for recharge as recycled water, storm water and imported water
6	Model/evaluate impacts to the Chino Basin's groundwater, short-tem and long-term, due to recycled water recharge
7	Assess impacts to down gradient existing supply wells due to recycled water recharge
8	Evaluate operational costs and staffing requirement for recharge operation
9	Identify probable and equitable benefits to the City resulting from the volume of recharge to the Upland Basin and the Chino Basin groundwater

The City's recharge activities will complement and advance CBWM objectives as noted in Attachment 3. Together, the CBWM groundwater management plan (abbreviated and known as OBMP) and recharge master plan serve the ultimate objectives of improving supply reliability and increasing sustainable yield in the Chino Basin by the recharge of recycled, storm and imported water. CBWM has identified recycled water as an important local supply source, especially for groundwater recharge, and maximizing the beneficial use of recycled water has been given a high priority, as such recharging recycled water at the Upland Basin will definitely serve the CBWM objectives and result in additional supply to the City and the Inland Empire.

To meet study objectives, City staff will work (in-kind services) to ensure all technical and regulatory issues regarding recycled water recharge at the Upland Basin are fully addressed. The LGA offers an excellent opportunity for the City and the region to move forward in our goals of reducing our reliance on imported water as well as further drought-proofing our area.

MAP A - Upland Basin



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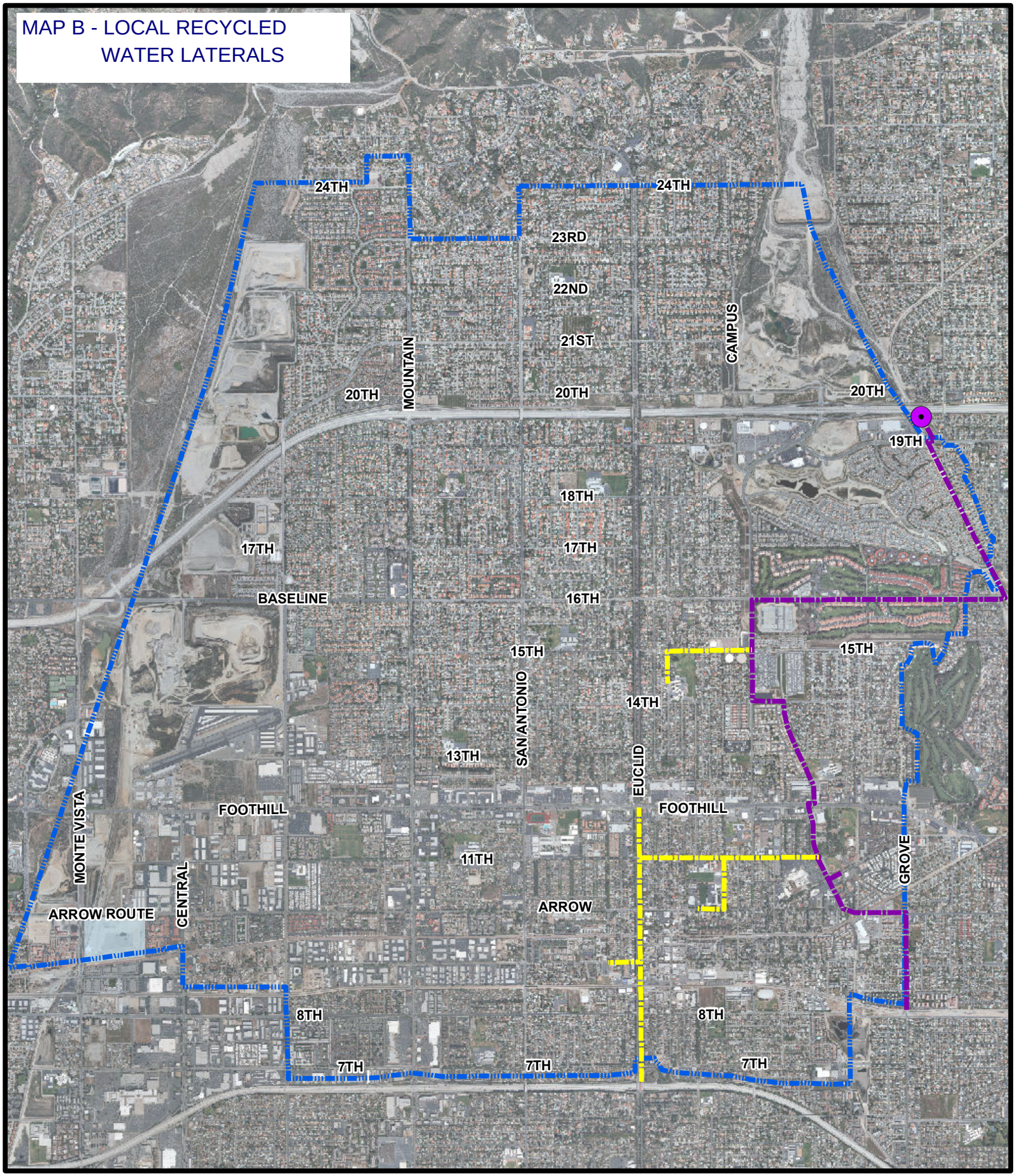
MAP B - LOCAL RECYCLED WATER LATERALS
24TH
24TH
23RD
22ND
21ST
20TH
20TH
20TH
19TH
18TH
17TH
17TH
16TH
15TH
15TH
14TH
13TH
11TH
8TH
8TH
7TH
7TH
7TH
BASELINE
FOOTHILL
FOOTHILL
ARROW
ARROW ROUTE
MOUNTAIN
CAMPUS
SAN ANTONIO
EUCLID
GROVE
MONTE VISTA
CENTRAL
0
0.35
0.7
1.4
2.1
2.8
Miles
9th St Reservoir
Regional IEUA Recycled Water Line
Existing City Recycled Water Laterals
City Boundary
Upland Recycled Water Pipelines
N
W
E
S